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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,789	08/21/2003	Katsutoshi Yamane	FSF-031441	6929
37398	7590	01/11/2005	EXAMINER	
TAIYO CORPORATION 2111 JEFFERSON DAVIS HIGHWAY #412, NORTH ARLINGTON, VA 22202			CHEA, THORL	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,789

Applicant(s)

YAMANE ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The method claimed in the present invention is indefinite for failing to include the actual processing steps therein. See especially the language in claims 1, 6, 19 which contains the term “using”, “is developed” and “is discharge” therein. There are no actual steps as how to perform the method provided in therein. The term “using” also fails to clearly define the processing step.

The use of the language “type” in claim 3, 22, 26, 27 in association with silver halide, development accelerator, mercapto compound, and benzotriazole compound renders the claims indefinite. See “type”, *Ex parte Copenhaver*, 108 USPQ 118.

3. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the step of imagewise exposing the photothermographic to laser light to form latent image before heat developing is essential step to form latent image before heat developing.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6, 18-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Shoji Nanami (US Patent No. 6,814,506)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Nanami discloses an image forming method using a photothermographic material as claimed. See the photothermographic material in column 13, lines 45-67 to column 62, and the apparatus of Fig. 1, especially the distance between the exposing section B and developing section C and the description thereof in column 6, lines 24-67 to column 10; the silver halide having different type of halogen and difference size of grains in column 28, lines 22-53; the organic silver salt in amount of 0.1 to 0.5 g/m² in column 15, lines 10-15; silver behenate 5.5 g/m² (12.3 mmole/m²) in column 57, line 9; the reducing agent in column 15, formula R, and column 17-21; the mercapto compound, the phthalazine and development accelerator in the exemplified samples in column 57; the benzotriazole in column 38, compound H-23; and the laser source emitting wavelength from 350 nm to 900 nm in column 9, lines 1-11. Nanami discloses the material and the apparatus claimed in the present claimed invention, and therefore, the claimed

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invention lacks novelty. The distance between the exposing section and development section, the speed of developing, and the gamma value are inherent properties of the apparatus and photothermographic material taught in Nanami.

6. Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Hirabyashi et al (US Patent No. 6,468,720). See Abstract and the Fig. 1 associated therewith. The photothermographic material has composition as claimed and it would have understood from Fig.1 that the exposed material is discharged after heat development which is within 30 after heat development. Accordingly, the claimed invention lacks novelty.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shoji Nanami (US Patent No. 6,814,506) and Wada (US Patent No. 6,524,781).

Nanami discloses a process such as described in the paragraph 6 above, but fails to disclose the barrier layer, which has been known and taught Wada, which discloses a barrier layer having trapping agent such as -NH- bond in the molecule. See abstract and odor trapping compound in column 2, lines 58-68, column 3 and column 4. See also the binders in column 12, lines 44-66. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to associate the barrier layer taught Wada with the material taught in Nanami to trap the odor during the heating process, and thereby provide a process as claimed.

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9. Claims 1-5, 6, 9-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bauer et al (US Patent No. 6,240,102) and Harabayashi et al (US Patent no. 6,468,720).

Bauer et al discloses a process of developing a photothermographic material having steps and photothermographic composition substantially as claimed. See the material exemplified in column 34 which contains an amount of silver salt of an fatty acid of g/m^2 (13.4 mmole/m^2); the silver halide having different halide composition and size in column 15, lines 20-37; the hindered phenol reducing agent in column 20, lines 10-30; the barrier layer in columns 39-44, claims 1-38; the polymer binder use in the barrier layer in column 9, lines 60-68, columns 10-12. The imaging of the photothermographic material can be achieved by exposing by suitable source including laser diodes that emit radiation in a desired region and the exposed material is developed at temperature from 50°C to 200°C . See column 32, lines 25-68 to column 32, lines 1-12. Harabayashi et al discloses to develop a heat developable photothermographic material with a transport speed from 22 to 40 mm/second at the not less than 117°C . Fig. 1 in Hirabayashi shows the exposed material transport to the heat development section right after exposure and discharge after heating process. Hirabayashi et al may not discloses the distance between the exposing section and developing section is not more than 50 cm or the photothermographic material is discharged from a thermal developing device within 35 seconds after heating for thermal development ceased claimed in the present claimed invention. However, it would have understood from the teaching of Hirabayashi et al that the material can be exposed within any distance including the distance claimed in the present claimed invention without affecting the quality of image. Moreover, it is understood from Fig. 1 that the

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photothermographic material would be discharged within 30 second after heat development. Accordingly, it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to develop the material known in the art including the material taught in Bauer et al in the heat developable device taught in Harabayashi et al with reasonable expectation of obtaining image with good quality. The gamma value present in the claimed invention is inherent to the photothermographic material after processing.

10. Claims 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bauer et al (US Patent No. 6,240,102) and Harabayashi et al (US Patent no. 6,468,720) as applied to claims 1-5, 6, 9-29 above, and further in view of Wada (US Patent No. 6,524,781). Bauer et al fail to disclose the barrier layer having trapping agent such as -NH-bond in the molecule, but the use of trapping agent has been known in Wada. See abstract and odor trapping compound in column 2, lines 58-68, column 3 and column 4. See also the binders in column 12, lines 44-66. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to associate the barrier layer taught Wada with the material taught in Bauer et al to trap the odor during the heating process, and thereby provide a process as claimed

Conclusion

11. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea *tlh*
January 5, 2005

Thorl Chea
Primary Examiner
Art Unit 1752

Thorkhea